CLAIMS:

1. An electric compressor, comprising:

an electric motor having an axis of rotation;

a compression mechanism that is driven by the electric motor to compress gas, wherein the compression mechanism includes a suction chamber;

a housing for accommodating the compression mechanism, wherein the housing defines a motor accommodating chamber that accommodates the electric motor such that the rotation axis of the motor is substantially horizontal, and wherein the pressure in the motor accommodating chamber is equal to the pressure in the suction chamber; and

a connecting passage for connecting a bottom portion of the motor accommodating chamber with the suction chamber.

2. The compressor according to claim 1, wherein the compression mechanism is of a scroll type and includes:

a stationary scroll having a base plate and a volute portion, wherein the base plate is fixed to the housing; and

a movable scroll having a base plate and a volute portion, wherein the movable scroll, together with the stationary scroll, defines a compression chamber between the volute portions,

wherein the motor causes the movable scroll to orbit so that the compression chamber is moved toward the center of the volute portions while decreasing the volume, whereby gas is compressed.

3. The compressor according to claim 2, wherein the surface of the movable scroll is plated with nickel phosphorus.

4. The compressor according to claim 2, wherein the base plate of the movable scroll has a first face and a

second face, the volute portion extending from the first face, and the second face being opposite from the first face, wherein a partition member is located in the housing to face the second face, wherein the second face and the partition member define a back pressure chamber, wherein an elastic body is located between the second face and the partition member, the elastic body urging the movable scroll toward the stationary scroll, and wherein the elastic body seals the back pressure chamber and the suction chamber from each other.

5. The compressor according to claim 4, wherein the elastic body is a doughnut-shaped plate.

6. The compressor according to claim 4, wherein an annular projection extends from the second face, and wherein the annular projection is pressed against the elastic body, thereby sealing the back pressure chamber.

7. The compressor according to claim 2, wherein the connecting passage extends between an inner surface of the housing and an outer surface of the stationary scroll.

8. The compressor according to claim 2, wherein the connecting passage is formed by denting a portion of an inner surface of the housing that faces an outer surface of the stationary scroll.

9. The compressor according to claim 1, wherein the lowest section of a face defining the connecting passage is located lower than the lowest part of the motor.

10. The compressor according to claim 1, wherein the connecting passage extends substantially horizontally for a certain length from a bottom portion of the motor

accommodating chamber and then extends upward toward the suction chamber.

11. The compressor according to claim 1, wherein, in the motor accommodating chamber, a recess is formed in a lower part of the housing that is located below the motor.

12. The compressor according to claim 1, wherein the compressor is used in a vehicle air conditioner.

13. An electric compressor, comprising:

an electric motor having an axis of rotation;

a compression mechanism that is driven by the electric motor to compress gas, wherein the compression mechanism includes a suction chamber;

a housing for accommodating the compression mechanism, wherein the housing defines a motor accommodating chamber that accommodates the electric motor such that the rotation axis of the motor is substantially horizontal; and

a suction passage for introducing gas into the suction chamber from the outside of the housing, wherein the motor accommodating chamber forms part of the suction passage, and wherein the suction passage includes a connecting passage that connects a bottom portion of the motor accommodating chamber with the suction chamber.

14. The compressor according to claim 13, wherein the compression mechanism is of a scroll type and includes:

a stationary scroll having a base plate and a volute portion, wherein the base plate is fixed to the housing; and

a movable scroll having a base plate and a volute portion, wherein the movable scroll, together with the stationary scroll, defines a compression chamber between the volute portions,

wherein the motor causes the movable scroll to orbit so

that the compression chamber is moved toward the center of the volute portions while decreasing the volume, whereby gas is compressed.

15. The compressor according to claim 14, wherein the surface of the movable scroll is plated with nickel phosphorus.

16. The compressor according to claim 14, wherein the base plate of the movable scroll has a first face and a second face, the volute portion extending from the first face, and the second face being opposite from the first face, wherein a partition member is located in the housing to face the second face, wherein the second face and the partition member define a back pressure chamber, wherein an elastic body is located between the second face and the partition member, the elastic body urging the movable scroll toward the stationary scroll, and wherein the elastic body seals the back pressure chamber and the suction chamber from each other.

17. The compressor according to claim 16, wherein the elastic body is a doughnut-shaped plate.

18. The compressor according to claim 16, wherein an annular projection extends from the second face, and wherein the annular projection is pressed against the elastic body, thereby sealing the back pressure chamber.

19. The compressor according to claim 14, wherein the connecting passage extends between an inner surface of the housing and an outer surface of the stationary scroll.

20. The compressor according to claim 14, wherein the connecting passage is formed by denting a portion of an

inner surface of the housing that faces an outer surface of the stationary scroll.

21. The compressor according to claim 13, wherein the lowest section of a face defining the connecting passage is located lower than the lowest part of the motor.

22. The compressor according to claim 13, wherein the connecting passage extends substantially horizontally for a certain length from a bottom portion of the motor accommodating chamber and then extends upward toward the suction chamber.

23. The compressor according to claim 13, wherein, in the motor accommodating chamber, a recess is formed in a lower part of the housing that is located below the motor.

24. The compressor according to claim 13, wherein the compressor is used in a vehicle air conditioner.